

MAR 25 2010

Docket No. 133860-2 (MHM 14882US02)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Zhang, et al.

Serial No. 10/616,319

Filed: July 9, 2003

For: Ultrasound Breast Screening Device

Examiner: Mehta, Parikha Solanki

Group Art Unit: 3737

Confirmation No. 1891

FOR DISCUSSION PURPOSES ONLY

PROPOSAL FOR EXAMINER'S AMENDMENT AFTER DECISION ON APPEAL

Dear Examiner Mehta:

As previously indicated, the Applicants submit the following proposed Amendment that you may use as an Examiner's Amendment.

- Claim 1 has been amended to recite the limitations of claim 2.
- Claim 6 (as recited prior to Appeal) has been rewritten in independent form as claim 66.
- Claim 18 (as recited prior to Appeal) has been rewritten in independent form as claim 67.
- Claims 6, 7, and 9 have been amended so that they are consistent with claim 1, as amended.
- Claim 24 has been amended to recite the limitations of claim 25.
- Claim 29 (as recited prior to Appeal) has been rewritten in independent form as claim 68.
- Claim 40 (as recited prior to Appeal) has been rewritten in independent form as claim 69.
- Claims 29, 30, and 32 have been amended so that they are consistent with claim 24, as amended.
- The deletions in claim 52 are to correct for inconsistencies noted in the Appeal Brief at pages 8-9.
- Claim 52 has been amended to recite the limitations of claim 54.

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- Claims 55, 57, and 58 have been canceled.
- Claim 63 (as recited prior to Appeal) has been rewritten in independent form as claim 70.

Please contact me with any concerns you may have with respect to these claims.

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THE CLAIMS

1. (Currently amended) An ultrasound breast imaging assembly comprising:
first and second compression plates that are angled with respect to one another;
a breast compression area defined between said first and second compression plates;
at least one pivot assembly allowing relative motion between said first and second compression plates, said at least one pivot assembly being operatively connected to each of said first and second compression plates, wherein said at least one pivot assembly comprises first and second pivot assemblies, wherein said first pivot assembly is operatively connected to said first compression plate, and said second pivot assembly is operatively connected to said second compression plate; and

an ultrasound probe having an active matrix array (AMA) positioned on one of said first and second compression plates, said ultrasound probe being configured to translate over said one of said first and second compression plates.

2. (Canceled)

3. (Original) The ultrasound breast imaging assembly of claim 1, wherein one of said first and second compression plates remains in a fixed orientation with respect to the other.

4. (Original) The ultrasound breast imaging assembly of claim 1, wherein the relative motion between said first and second compression plates occurs over an arcuate path.

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5. (Original) The ultrasound breast imaging assembly of claim 1, wherein said at least one pivot assembly comprises a spring member that connects said first compression plate to said second compression plate.

6. (Currently amended) The ultrasound breast imaging assembly of claim 1, wherein said ultrasound breast imaging assembly comprises an upright member supported by a base, said ~~first compression plate being operatively connected to a first pivot assembly, which is~~ in turn positioned on a first portion of said upright member, said ~~second compression plate being operatively connected to a second pivot assembly, which is~~ in turn positioned on a second portion of said upright member.

7. (Currently amended) The ultrasound breast imaging assembly of claim 1, wherein said ultrasound breast imaging assembly comprises an upright member supported by a base, said ~~first compression plate being operatively connected to a first pivot assembly, which is~~ in turn connected to a first extension member, which is in turn translationally secured to said upright member.

8. (Original) The ultrasound breast imaging assembly of claim 7, wherein said second compression plate remains in a fixed orientation.

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9. (Currently amended) The ultrasound breast imaging assembly of claim 7, wherein said ~~second compression plate is operatively connected to a~~ second pivot assembly, ~~which~~ is in turn connected to a second extension member, which is in turn translationally secured to said upright member.

10. (Original) The ultrasound breast imaging assembly of claim 7, wherein said first extension member is perpendicular to said upright member, and wherein said first extension member translates along said upright member while said first and second compression plates remain angled with respect to one another, wherein the angle between the first and second compression plates changes when a breast is compressed therebetween.

11. (Original) The ultrasound breast imaging assembly of claim 1, wherein said first and second compression plates are configured to compress a breast in said breast compression area so that said probe may image the breast, and wherein said first and second compression plates remain angled with respect to one another, wherein the angle between the first and second compression plates changes upon the relative motion between the first and second compression plates.

12. (Original) The ultrasound breast imaging assembly of claim 1, wherein said first and second compression plates are radiolucent.

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13. (Original) The ultrasound breast imaging assembly of claim 1, wherein said first and second compression plates are configured to adequately contact the breast for imaging even though the breast is not substantially flattened.

14. (Original) The ultrasound breast imaging assembly of claim 1, wherein said ultrasound breast imaging assembly is used in conjunction with an x-ray mammography system.

15. (Original) The ultrasound breast imaging assembly of claim 14, wherein said ultrasound breast imaging assembly is secured to a portion of said x-ray mammography system.

16. (Original) The ultrasound breast imaging assembly of claim 1, wherein said AMA comprises a plurality of rows of a plurality of ultrasound elements.

17. (Original) The ultrasound breast imaging assembly of claim 16, wherein at least one group of said plurality of ultrasound elements is selectively activated during an imaging procedure.

18. (Previously presented) The ultrasound breast imaging assembly of claim 1, further comprising an upright member supported by a base, and a swivel member that connects said at least one pivot assembly and first and second compression plates to said upright member, wherein said swivel member is configured to rotate said first and second compression plates through a plurality of imaging orientations.

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19. (Original) The ultrasound breast imaging assembly of claim 18, wherein said plurality of imaging orientations comprise a cranio-caudal (CC) orientation and a mediolateral oblique (MLO) orientation.

20. (Original) The ultrasound breast imaging assembly of claim 1, wherein said ultrasound breast imaging assembly is configured to allow a patient to be imaged in a standard mammography position.

21. (Original) The ultrasound breast imaging assembly of claim 1, wherein one of said first and second compression plates comprises a sonolucent compression film, and wherein said ultrasound probe is configured to translate over said sonolucent compression film.

22. (Original) The ultrasound breast imaging assembly of claim 1, wherein one of said first and second compression plates comprises a sound absorbing stabilization plate.

23. (Original) The ultrasound breast imaging assembly of claim 1, wherein the first and second compression plates remain angled with respect to one another during the relative motion between said first and second compression plates, and wherein the angle between said first and second compression plates changes during the relative motion between the first and second compression plates.